

ABSTRACT OF THE DISCLOSURE

A rotor of an induction starting synchronous motor includes permanent magnets and induction coils having both ends short-circuited in a core. The permanent magnets are arranged side by side in a longitudinal direction of the core to form a plurality of sets of permanent magnets. Two sets of the permanent magnets form respective poles of the induction starting synchronous motor. The two sets of permanent magnets forming each of the poles are located inclined or slightly shifted in a cross-sectional plane of the core by rotating the two sets of permanent magnets about corners of the permanent magnets nearest the induction coils as rotating axes into directions such that magnetic fluxes induced by the two sets of permanent magnets are cancelled each other. With this construction, the induction starting synchronous motor can be smoothly started and operated with improved power factor and efficiency characteristics. A slot for receiving the two sets of permanent magnets is preferably formed at its mid portion with a protrusion and a cavity so as not to permit the permanent magnets to contact each other.